

# SAFE CHILL™ BLAST CHILLERS

Service, Installation and Care Manual
Please read this manual completely before attempting to install or operate this equipment! Notify carrier of damage! Inspect all components immediately. See page 2.



**Model DBC-10** 



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#### **Serial Number Information**

On Delfield's Safe Chill<sup>TM</sup> Blast Chiller units, the serial tag is located on the right hand interior side of the top cabinet.

Always have the serial number of your unit available when calling for parts or service. A complete list of authorized Delfield parts depots is shown on the back cover of this manual.

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#### **Receiving and Inspecting the Equipment**

Care should be taken during unloading so the equipment is not damaged while being moved into the building.

Carefully check for any visible signs of damage to the cartons or containers. If evidence of damage exists, the package should be opened immediately and a joint inventory and examination of the contents should be made by you and the driver.

#### **Concealed damage**

If a concealed loss or damage is discovered after you have given the carrier a clear delivery receipt, notify the carrier in writing immediately or within 10 days from the delivery date. If you phone the carrier, you must follow up the call in writing to protect your rights. You can only improve your position as a claimant by promptly reporting such loss or damage. You should also retain all cartons or containers, including packing material, until an inspection has been made or waived.

#### Filing a claim

Notation of loss or damage does not constitute the filing of a claim. You should file your claim in writing with the carrier immediately.

Carriers will furnish the necessary form upon request. You should also request an inspection. If a claim is filed by phone, always follow up immediately in writing.

#### Safe Chill™ Blast Chiller

#### Mechanical Data

MODEL NUMBER	LENGTH	DEPTH	HEIGHT	# OF PANS	HP	AMPS	REF CHG	BTU SYS CAP	NEMA PLUG	SHIP WEIGHT
DBC-5	35.63	31.1	47.50	5	3/4	11/120v	56 oz.	4000	5-20P	410
DBC-5U	52.25	30.92	32	5	3/4	11/120v	56 oz.	4000	5-20P	410
DBC-10	35.63	31.1	70.50	10	(2)3/4	11 (120v/208-240v)	(2) 56 oz.	(2) 4000	14-20P	600



#### Installation

#### Location

Be sure the location chosen has a floor strong enough to support the total weight of the cabinet and contents. Reinforce the floor if necessary to provide for maximum loading.

For the most efficient operation, be sure to provide good air circulation inside and out.

Inside cabinet: Do not pack the equipment so full that air cannot circulate.

Outside cabinet: Be sure that the unit has access to ample air. Avoid hot corners and locations near stoves and ovens.

Installation note: Evaporator drains are also located to the right of the evaporator housing and run to a condensate evaporator pan. No external drains are needed as this is all self contained. Drain lines need to be kept free from obstruction to allow for proper water removal.

It is recommended that the unit be installed no closer than 2" from any wall.

#### Leveling

A level cabinet looks better and will perform more efficiently when the doors line up with the door frames properly, the cabinet will not be subject to undue strain, and the corners of the shelves will not move around on the supports. Use a level to make sure the unit is level from front to back and side to side.

The unit comes standard with non adjustable casters, a level floor is very important. If it becomes necessary to level the unit adjustable legs are available.

#### Stabilizing

All models are supplied on casters for your convenience, ease of cleaning and mobility. It is very important, however, that the cabinet be installed in a stable condition with the front wheels locked while in use.



Should it become necessary to lay the unit on its side or back for any reason, allow at least 24 hours before start-up so as to allow compressor oil to flow back to the sump.

#### **Electrical Connection**

Refer to the amperage data on page 2, the serial tag, your local code or the National Electrical Code to be sure the unit is connected to the proper power source. A protected circuit of the correct voltage and amperage must be run for connection of the line cord, or permanent connection to the unit.



The unit should be disconnected from the power source whenever performing service, maintenance functions or cleaning the refrigerated area.



Be careful - the line cord is not run over by the casters when moving the unit. This can damage the cord

### **Operation Information**

### (SEE PAGE 4 FOR DIAGRAM OF CONTROL PANEL) Operating Pressures

Normal operating pressures should be achieved during the preservation mode, with approximately 75 of ambient temperature. Freezer mode 15# suction and 220# discharge. Chilling mode 55# suction and 220# discharge.

Blast Chilling (soft mode): This mode pulls the food down from the starting temperature to food set point of 37°F (FP1). Once the temperature is obtained the unit sounds an alarm and either switches to preservation mode automatically (after the alarm times out) or manually. During pull down in soft mode, the blast chiller maintains a box temperature of 23°F (BT1). This mode is primarily used for pulling down delicate foods.

Blast Chilling (hard mode): This mode operates the same way as the soft mode except for the box temperature. During pull down from start until one of the two food probes reaches 47°F (FP2) the box temperature is maintained at -5°F (BT2), after this point the box temperature is held at 23°F (BT1) until the food reaches 37°F (FP1). This mode is for items that are harder to pull down or if a faster chilling time is desired.

**Blast Chilling (timed mode):** This mode operates in either a soft or hard mode. The user can preset the amount of time the chiller pulls down for up to 240 minutes (TC1). The unit will pull down until the time is reached or the two probes hit 37°F (FP1). At this point the unit will sound an alarm and go into preservation mode.

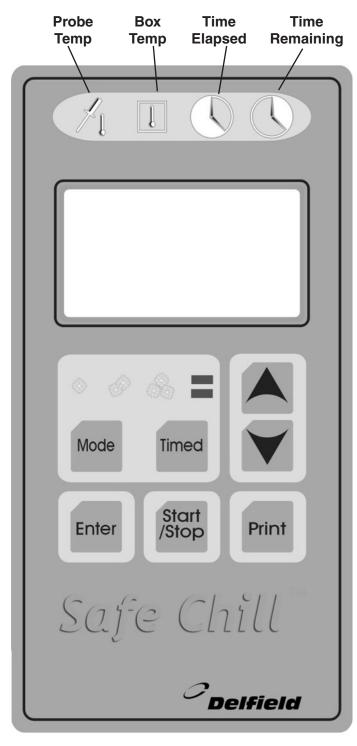
**Freezer Mode:** This mode pulls the food down from starting point to 0°F (FP3). In this mode the unit operates in a hard chill mode until one of the two food probes reach 37°F (FP1). At that point the box temperature is pulled down to -25°F (BT3) until the food set point of 0°F (FP3) is reached. At this point an alarm is sounded and the unit can go into preservation mode.

**Preservation Mode:** After any of the above cycles reach their set point, the unit will go into a preservation mode. This mode will be held until the user terminates it. After chilling, the food probes will maintain a temperature of 37°F (FP1) using a box temperature of 23°F (BT1). After the freezing, the food probes will maintain a temperature of 0°F (FP3) using a box temperature of -15°F (BT3).





#### Safe Chill™ Control





#### **OPERATION CONTINUED...**

**Defrost Mode:** After chilling/freezing the unit will go into a defrost mode for 15 minutes or until the coil reaches a temperature of 70°(DF1). During the freezer preservation mode the defrost heater will operate for 15 minutes (DF2) or until the coil reaches a temperature of 70°F(DF1) every 6 hours (DF3).

**Tandem Mode (DBC-10 only):** In this mode, both the upper and lower compartments will start at the same time running in the same mode of operation (soft, hard, or freezer mode). Once operating the compartments cycle independently. For example, if the bottom compartment pulls down quicker than the top it will shut down without affecting the tops operation.

**Individual Mode (DBC-10 only):** This mode allows operation of the two compartments in different modes of operation starting them at different times. For example, the top compartment can be loaded to run in a timed soft chill cycle, and at any time the bottom could be loaded in a freezer mode and started.

#### **Operating the Control**

- Start Cycle (DBC-10 will start both upper and lower units):
  - Press MODE button, display will change.
  - Press MODE button until desired mode (soft, hard, freeze) appears in left hand upper corner of display.
  - Press START/STOP button, unit will start cycle.
- 2. Start cycle in individual mode (DBC-10 only):
  - Press MODE button, display will change
  - Press MODE button until "Indiv" appears in left hand upper corner of display.
  - Press ENTER button.
  - Press MODE button until desired mode (soft, hard, freeze) appears in left hand upper corner of display.
  - Press START/STOP button, unit will start cycle.
- Start cycle in timed mode (DBC-10 only will start both upper and lower units):
  - Press MODE button, display will change
  - Press MODE button until "Indiv" appears in left hand upper corner of display.
  - Press TIMED button, counter will appear in right hand upper corner of display.
  - Press UP/DOWN buttons to adjust timer to desired setting.
  - Press START/STOP button, unit will start cycle.

#### 4. To stop a cycle:

Press START/STOP button for one second.
 If unit is a DBC-5 or DBC-5U cycle will shut down.
 DBC-10 If only one compartment is running, cycle will shut down. If both compartments are running, display will prompt you to shut entire unit down by pressing START/STOP button. To shut down the individual compartments press the UP button for the top or the DOWN button for the bottom.



#### OPERATION CONTINUED...

#### 5. Start cycle with one unit running (DBC-10 only):

- Press MODE button, display will change.
- Press MODE button until desired mode (soft, hard, freeze) appears in left hand upper corner of display.

Press START/STOP button, unit will start cycle.

- Adjusting parameters (using this function will affect performance and should only be carried out by qualified personnel.):
  - Press and hold UP and MODE buttons until menu changes to system menu.
  - Press UP/DOWN button until "Preset Menu" is highlighted.
  - Press UP/DOWN button until parameter to be adjusted is shown.

To edit press ENTER button

Press UP/DOWN button until new setting is displayed. Press ENTER to save.

• Press START/STOP to back out to previous menu.

#### 7. Setting Clock.

Skip first three steps if clock is being set from power startup

- Press and hold UP and MODE buttons until menu changes to system menu.
- Press UP/DOWN button until "Clock setup" is highlighted.
- Press ENTER button to access Clock setup.
- Press UP/DOWN button until value to be adjusted is highlighted.
- Press ENTER button to edit setting.
- Press UP/DOWN button until new setting is displayed.
- Press ENTER button to save setting.
- Repeat if additional settings require adjustment.

#### 8. Printing

Print parameter (PR1) must be set to OFF (default) for unit to print after cycle is complete. If PR1 is set to ON unit will download information at the print intervals (PT1). Information is downloaded to printer using the RS-232 port under the touch pad. If information is to be downloaded to a PC a crossed RS-232 cable must be used.

Unit will only print to an 80 character wide printer.

- The following instructions are for printing after cycle is complete (PR1 set to OFF).
- For DBC-5 and DBC-5U press the PRINT button and unit will begin downloading information. Print function will only work if the selected units cycle is completed.
- Control only saves information from previous cycle; once a new cycle is started the previous information is deleted.

#### 9. Alarms and Faults

The unit will sound an alarm upon the completion of a cycle or if a fault occurs. The end of a cycle alarm is distinctively different than the fault alarm. If a fault occurs an alarm will sound and the display will prompt you to press the ENTER button. The display will then show an explanation of the fault that occurred. To end the fault message press START/STOP button. This will repeat if there is more than one fault. If the cycle that the fault occurred in is printed the print out will place an "x" at the right hand side of the printout under the letter that corresponds to that fault. See the list below for the fault and its equivalent letter.

A Product Probe #1 open
B Product Probe #1 shorted
C Product Probe #2 open
D Product Probe #2 shorted
E Box temperature sensor open
F Box temperature sensor shorted
G Defrost temperature sensor open
H Defrost temperature sensor shorted
I Chill cycle time exceeded
J Food temperature below limit
K Power interrupted cycle



#### **MAINTENANCE**

The interior and exterior can be cleaned using soap and warm water. If this isn't sufficient, try ammonia and water or a nonabrasive liquid cleaner. When cleaning the exterior, always rub with the "grain" of the metal to avoid marring the finish. Do not use an abrasive cleaner because it will scratch the metal.

In order to maintain proper refrigeration performance, the condenser fins must be cleaned of dust, dirt and grease regularly. The condenser coil is located behind the removable louvered front and there are two coils located on the DBC-10. It is recommended that these be cleaned at least once every three months. If conditions are such that the condenser is totally blocked in three months, the frequency of cleaning should be increased. Clean the condenser with a vacuum cleaner or stiff brush. If it's extremely dirty, a commercially available condenser cleaner may be required.

Door gaskets are dart style and can easily be replaced without the use of any tools. Do not use sharp tools or knives to scrape the bellows as this may tear the gasket and eliminate its ability to seal. Door gaskets should be cleaned as required to maintain their ability to seal properly. A soft bristle brush and solution of soap and water will keep the gaskets clean. Do not use full strength de-greasing agents on the gasket.

Pan slides are removable via the four thumb screws and are made of stainless steel. They are dishwasher safe or can be cleaned with soap and water.

#### **Food Probes:**

If necessary to check the probes, they are a 10,000 ohm thermistor and it is important that they be kept away from any high voltage wiring. There are four probes per section; two food probes, one box probe and an evaporator probe. Accessing the evaporator, expansion valve, and other evaporator components can be done by removing the pan slides and pulling the evaporator housing away slowly as to not pull out any wiring. Once access has been gained wire ties can be cut and the housing can be removed. Food probes can be cleaned with soap and water. For optimum use of the food probes, do not allow the handle to rest in the food. When removing a food probe from the food do not pull on the cable, use the handle.

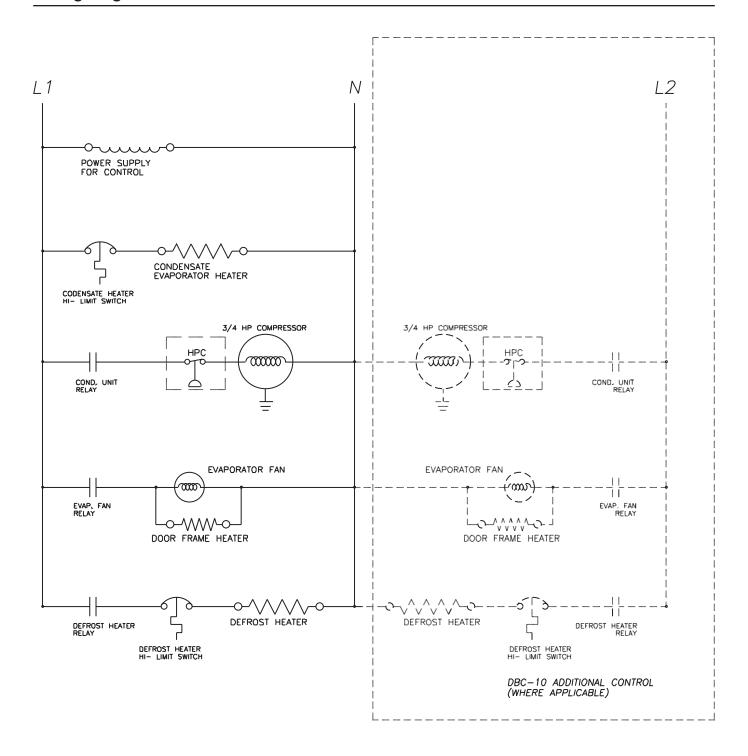
The control uses a lithium battery and may need to be replaced approximately every five years.

#### **List of Parameters**

PARAMETER DESCRIPTION	PARAMETER	DEFAULT	RANGE	COMMENTS
Food probe temperature (chilling)	(FP1)	37°F	28°F to 40°F	
Food probe temperature (hard chilling)	(FP2)	47°F	0°F to 70°F	
Food probe temperature (freezing)	(FP3)	0°F	-20°F to 10°F	
Box temperature (soft/hard chilling)	(BT1)	23°F	20°F to 37°F	
Box temperature (hard chilling)	(BT2)	-5°F	20°F to 37°F	
Box temperature (freezing hold)	(BT3)	-15°F	-5°F to -30°F	
Maximum chill time	(TC1)	240 minutes	0 to 240 minutes	
Defrost termination (temperature)	(DF1)	55°F	40°F to 70°F	
Defrost termination (time)	(DF2)	15 minutes	0 to 90 minutes	
Defrost cycle time (freezing)	(DF3)	360 minutes	180 to 480 minutes	
Print output	(PR1)	(PR1)	OFF to PR1	
Print interval	(PT1)	5 minutes	0 to 480 minutes	
Maximum coil temperature (evaporator fan)	(MCT)	30°F	20°F TO 60°F	
Chill time recall	(CTR)	Recall	0 to chill time alarm (TC1)	Stores last chill time /or preset



#### **Wiring Diagram**





	DELFIELD		DELFIELD
DESCRIPTION	PART#	DESCRIPTION	PART#
DBC-10		DBC-5U	
CASTER, 3"	3234186	CASTER, 3"	323418
COND UNIT 3/4 HP, R404A 115V	3526712	COND UNIT 3/4 HP, R404A 115V	352671
DEFROST HEATER	2194551	DEFROST HEATER	219455
DOOR ASSY, TOP LH	000-ABG-0030	DOOR ASSY, LH	000-ABG-003
DOOR ASSY, BTM LH	000-ABG-0031	DOOR GASKET	170126
DOOR GASKET	1701263	EVAPORATOR COIL	351613
EVAPORATOR COIL	3516139	EVAPORATOR FAN BLADE	351614
EVAPORATOR FAN BLADE	3516140	EVAPORATOR FAN GUARD	351614
EVAPORATOR FAN GUARD	3516149	EVAPORATOR FAN MOTOR	216251
EVAPORATOR FAN MOTOR	2162513	EXPANSION VALVE	351615
EXPANSION VALVE	3516150	FILTER DRIER	351619
FILTER DRIER	3516190	HINGE, BTM LH, TOP RH	323422
HINGE, BTM LH, TOP RH	3234227	HINGE, BTM RH, TOP LH	323422
HINGE, BTM RH, TOP LH	3234226	HINGE, CENTER BRKT	323405
HINGE, CENTER BRKT	3234050	HINGE, SELF CLOSING ~	323422
HINGE, SELF CLOSING	3234225	HINGE, PIVOT BRKT BTM LFT	323422
HINGE,PIVOT BRKT BTM LFT	3234228	HINGE,PIVOT BRKT BTM RH	323422
HINGE, PIVOT BRKT BTM RH	3234229	LEG, 6"	323403
LEG, 6"	3234039	LOUVER	223-ABA-003
LOUVER	223-ABA-0031	PROBE, FOOD	351631
PROBE, FOOD	3516315	PAN SLIDE, RH	271-A9P-000
PAN SLIDE, RH	271-A9P-0000	PAN SLIDE, LH	271-A9O-000
PAN SLIDE, LH	271-A9O-0000	TEMPERATURE CONTROL	219455
	2194552	THUMB SCREW	932119
THUMB SCREW	2194552 9321190	THUMB SCREW	932119
THUMB SCREW  DBC-5	9321190	THUMB SCREW	932119
THUMB SCREW  DBC-5  CASTER, 3"	9321190 3234186	THUMB SCREW	932119
THUMB SCREW  DBC-5  CASTER, 3"  COND UNIT 3/4 HP, R404A 115V	9321190 3234186 3526712	THUMB SCREW	932119
TEMPERATURE CONTROL THUMB SCREW  DBC-5 CASTER, 3" COND UNIT 3/4 HP, R404A 115V DEFROST HEATER	9321190 3234186 3526712 2194551	THUMB SCREW	932119
THUMB SCREW  DBC-5  CASTER, 3"  COND UNIT 3/4 HP, R404A 115V  DEFROST HEATER  DOOR ASSY, LH	9321190 3234186 3526712 2194551 000-ABG-0030	THUMB SCREW	932119
THUMB SCREW  DBC-5  CASTER, 3"  COND UNIT 3/4 HP, R404A 115V  DEFROST HEATER  DOOR ASSY, LH  DOOR GASKET	9321190 3234186 3526712 2194551 000-ABG-0030 1701263	THUMB SCREW	932119
THUMB SCREW  DBC-5  CASTER, 3"  COND UNIT 3/4 HP, R404A 115V  DEFROST HEATER  DOOR ASSY, LH  DOOR GASKET  EVAPORATOR COIL	9321190 3234186 3526712 2194551 000-ABG-0030 1701263 3516139	THUMB SCREW	932119
THUMB SCREW  DBC-5  CASTER, 3"  COND UNIT 3/4 HP, R404A 115V  DEFROST HEATER  DOOR ASSY, LH  DOOR GASKET  EVAPORATOR COIL  EVAPORATOR FAN BLADE	9321190 3234186 3526712 2194551 000-ABG-0030 1701263 3516139 3516140	THUMB SCREW	932119
THUMB SCREW  DBC-5  CASTER, 3"  COND UNIT 3/4 HP, R404A 115V  DEFROST HEATER  DOOR ASSY, LH  DOOR GASKET  EVAPORATOR COIL  EVAPORATOR FAN BLADE  EVAPORATOR FAN GUARD	9321190  3234186 3526712 2194551 000-ABG-0030 1701263 3516139 3516140 3516149	THUMB SCREW	932119
THUMB SCREW  DBC-5 CASTER, 3" COND UNIT 3/4 HP, R404A 115V DEFROST HEATER DOOR ASSY, LH DOOR GASKET EVAPORATOR COIL EVAPORATOR FAN BLADE EVAPORATOR FAN GUARD EVAPORATOR FAN MOTOR	9321190  3234186 3526712 2194551 000-ABG-0030 1701263 3516139 3516140 3516149 2162513	THUMB SCREW	932119
THUMB SCREW  DBC-5  CASTER, 3"  COND UNIT 3/4 HP, R404A 115V  DEFROST HEATER  DOOR ASSY, LH  DOOR GASKET  EVAPORATOR COIL  EVAPORATOR FAN BLADE  EVAPORATOR FAN GUARD  EVAPORATOR FAN MOTOR  EXPANSION VALVE	9321190  3234186 3526712 2194551 000-ABG-0030 1701263 3516139 3516140 3516149 2162513 3516150	THUMB SCREW	932119
THUMB SCREW  DBC-5  CASTER, 3"  COND UNIT 3/4 HP, R404A 115V  DEFROST HEATER  DOOR ASSY, LH  DOOR GASKET  EVAPORATOR COIL  EVAPORATOR FAN BLADE  EVAPORATOR FAN GUARD  EVAPORATOR FAN MOTOR  EXPANSION VALVE  FILTER DRIER	9321190  3234186 3526712 2194551 000-ABG-0030 1701263 3516139 3516140 3516149 2162513 3516150 3516190	THUMB SCREW	932119
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THUMB SCREW  DBC-5  CASTER, 3"  COND UNIT 3/4 HP, R404A 115V  DEFROST HEATER  DOOR ASSY, LH  DOOR GASKET  EVAPORATOR COIL  EVAPORATOR FAN BLADE  EVAPORATOR FAN GUARD  EVAPORATOR FAN MOTOR  EXPANSION VALVE  FILTER DRIER  HINGE, BTM LH, TOP RH  HINGE, BTM RH, TOP LH	9321190  3234186 3526712 2194551 000-ABG-0030 1701263 3516139 3516140 3516149 2162513 3516150 3516190 3234227 3234226	THUMB SCREW	932119
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THUMB SCREW  DBC-5  CASTER, 3"  COND UNIT 3/4 HP, R404A 115V  DEFROST HEATER  DOOR ASSY, LH  DOOR GASKET  EVAPORATOR COIL  EVAPORATOR FAN BLADE  EVAPORATOR FAN MOTOR  EVAPORATOR FAN MOTOR  EVAPORATOR FAN HOTOR  EVAPORATOR FAN HOTOR  HINGE, BTM LH, TOP RH  HINGE, BTM RH, TOP LH  HINGE, CENTER BRKT  HINGE, SELF CLOSING  HINGE, PIVOT BRKT BTM LHT  HINGE, PIVOT BRKT BTM RH	9321190  3234186 3526712 2194551 000-ABG-0030 1701263 3516139 3516140 3516149 2162513 3516150 3516150 3516190 3234227 3234226 3234050 3234225 3234228 3234228	THUMB SCREW	932119
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THUMB SCREW  DBC-5  CASTER, 3"  COND UNIT 3/4 HP, R404A 115V  DEFROST HEATER  DOOR ASSY, LH  DOOR GASKET  EVAPORATOR COIL  EVAPORATOR FAN BLADE  EVAPORATOR FAN MOTOR  EXPANSION VALVE  FILTER DRIER  HINGE, BTM LH, TOP RH  HINGE, BTM RH, TOP LH  HINGE, SELF CLOSING  HINGE, PIVOT BRKT BTM RH  LEG, 6"  LOUVER	9321190  3234186 3526712 2194551 000-ABG-0030 1701263 3516139 3516140 3516149 2162513 3516150 3516190 3234227 3234226 3234050 3234225 3234228 3234228 3234229 3234039 223-ABA-0031	THUMB SCREW	932119
THUMB SCREW  DBC-5  CASTER, 3"  COND UNIT 3/4 HP, R404A 115V  DEFROST HEATER  DOOR ASSY, LH  DOOR GASKET  EVAPORATOR COIL  EVAPORATOR FAN BLADE  EVAPORATOR FAN MOTOR  EXPANSION VALVE  FILTER DRIER  HINGE, BTM LH, TOP RH  HINGE, BTM RH, TOP LH  HINGE, SELF CLOSING  HINGE, PIVOT BRKT BTM RH  LEG, 6"  LOUVER  PAN SLIDE, RH	9321190  3234186 3526712 2194551 000-ABG-0030 1701263 3516139 3516140 3516149 2162513 3516150 3516190 3234227 3234226 3234050 3234225 3234228 3234229 3234039 223-ABA-0031 271-A9P-0000	THUMB SCREW	932119
THUMB SCREW  DBC-5  CASTER, 3"  COND UNIT 3/4 HP, R404A 115V  DEFROST HEATER  DOOR ASSY, LH  DOOR GASKET  EVAPORATOR COIL  EVAPORATOR FAN BLADE  EVAPORATOR FAN MOTOR  EXPANSION VALVE  FILTER DRIER  HINGE, BTM LH, TOP RH  HINGE, BTM RH, TOP LH  HINGE, SELF CLOSING  HINGE, PIVOT BRKT BTM RH  LEG, 6"  LOUVER  PAN SLIDE, RH  PAN SLIDE, LH	9321190  3234186 3526712 2194551 000-ABG-0030 1701263 3516139 3516140 3516149 2162513 3516150 3516190 3234227 3234226 3234050 3234225 3234228 3234229 3234039 223-ABA-0031 271-A9P-0000 271-A9O-0000	THUMB SCREW	932119
THUMB SCREW  DBC-5  CASTER, 3"  COND UNIT 3/4 HP, R404A 115V  DEFROST HEATER  DOOR ASSY, LH  DOOR GASKET  EVAPORATOR COIL  EVAPORATOR FAN BLADE  EVAPORATOR FAN MOTOR  EXPANSION VALVE  FILTER DRIER  HINGE, BTM LH, TOP RH  HINGE, BTM RH, TOP LH  HINGE, SELF CLOSING  HINGE, PIVOT BRKT BTM RH  LEG, 6"  LOUVER  PAN SLIDE, RH	9321190  3234186 3526712 2194551 000-ABG-0030 1701263 3516139 3516140 3516149 2162513 3516150 3516190 3234227 3234226 3234050 3234225 3234228 3234229 3234039 223-ABA-0031 271-A9P-0000	THUMB SCREW	932119



Notes:		



Standard One Year Warranty One year service, labor and parts.

The Delfield Company ("Delfield") warrants to the Original Purchaser of the Delfield product (herein called the "Unit") that such Unit, and all parts thereof, will be free from defects in material and workmanship under normal use and service for a period of one (1) year from the date of shipment of the Unit to the Original Purchaser or, if the Original Purchaser returns the warranty card completely filled out including the date of installation within thirty (30) days of receipt of the Unit, one (1) year from the date of installation. During this one year warranty period, Delfield will repair or replace any defective part or portion there of returned to Delfield by the Original Purchaser which Delfield determines was defective due to faulty material or workmanship. The Original purchaser will pay all labor, crating, freight and related costs incurred in the removal of the Unit of defective component and shipment to Delfield, except that during a period of either ninety (90) days from the date of shipment of the Unit to the Original Purchaser or if, the Original Purchaser returns the warranty card completely filled out including the date of installation within thirty (30) days of receipt of the Unit, ninety (90) days from the date of installation Delfield will pay all related labor costs. Delfield will pay the return costs if the Unit or part thereof was defective.

The term "Original Purchaser" as used herein means that person, firm, association, or corporation for whom the Unit was originally installed.

This warranty does not apply to any Unit or part thereof that has been subjected to misuse, neglect, alteration, or accident, such as accidental damage to the exterior finish, operated contrary to the recommendations specified by Delfield: or repaired or altered by anyone other than Delfield in any way so as to, in Delfield's sole judgement, affect its quality or efficiency. This warranty does not apply to any Unit that has been moved from the location where it was originally installed. This warranty also does not cover the refrigerator drier or the light bulbs used in the Unit. The warranty is subject to the user's normal maintenance and care responsibility as set forth in the Service and Installation Manual, such as cleaning the condenser coil, and is in lieu of all other obligations of Delfield. Delfield neither assumes, nor authorizes any other person to assume for Delfield, any other liability in connection with Delfield's products.

Removal or defacement of the original Serial Number or Model Number from any Unit shall be deemed to release Delfield from all obligations hereunder or any other obligations, express or implied.

Parts furnished by suppliers to Delfield are guaranteed by Delfield only to the extent of the original manufacturer's express warranty to Delfield.

Failure of the Original Purchaser to receive such manufacturers warranty shall in no way create any warranty, expressed or implied, or any other obligation or liability on Delfield's part in respect thereof.

If shipment of a replacement part is requested prior to the arrival in the Delfield factory of the part claimed to be defective, the Original Purchaser must accept delivery of the replacement part on a C.O.D. basis, with credit being issued after the part has been received and inspected at Delfield's plant and determined by Delfield to be within this warranty.

Under no condition does this warranty give the Original Purchaser the right to replace the defective Unit with a complete Unit of the same manufacturer or of another make. Unless authorized by Delfield in writing, this warranty does not permit the replacement of any part, including the motor-compressor, to be made with the part of another make or manufacturer.

No claims can be made under this warranty for spoilage of any products for any reason, including system failure.

The installation contractor shall be responsible for building access, entrance and field conditions to insure sufficient clearance to allow any hood(s), vent(s), or Unit(s) if necessary, to be brought into the building. Delfield will not be responsible for structural changes or damages incurred during installation of the Unit or any exhaust system.

Delfield shall not be liable in any manner for any default or delay in performance hereunder caused by or resulting from any contingency beyond Delfield's control, including, but not limited to, war, governmental restrictions or restraints, strike, lockouts, injunctions, fire, flood, acts of nature, short or reduced supply of raw materials, or discontinuance of the parts by the original part manufacturer.

Except as provided in any Additional Four Year Protection Plan, if applicable, and the Service Labor Contract, if applicable, the foregoing is exclusive and in lieu of all other warranties, whether written or oral, express or implied. This warranty superseded and excludes any prior oral or written representations or warranties. Delfield expressly disclaims any implied warranties of merchantability, fitness for a particular purpose of compliance with any law, treaty, rule or regulation relating to the discharge of substances into the environment. The sole and exclusive remedies of any person relating to the Unit, and the full liability of Delfield for any breach of this warranty, will be as provided in this warranty.

Other than this Delfield Standard One Year Limited Warranty, any applicable Delfield Additional Four Year Protection Plan or applicable Delfield Service Labor Contract, the Original Purchaser agrees and acknowledges that no other warranties are offered or provided in connection with or for the unit or any other part thereof.

In no event will Delfield be liable for special, incidental or consequential damages, or for damages in the nature of penalties.



#### Additional Four Year Protection Plan (for Motor-Compressors only)

Delfield Model#	Serial #	Installation Date

In addition to the Standard One Year Warranty on the Motor-Compressor contained in the above listed Delfield product (the "Unit"), The Delfield Company ("Delfield") also agrees to repair, or exchange with similar or interchangeable parts in design and capacity at Delfield's option, the defective Motor-Compressor contained in the Unit (the "Motor-Compressor), or any part thereof, for the Original Purchaser only, at any time during the four (4) years following the initial one (1) year period commencing on the date of installation for the Original Purchaser. Failure of the Original Purchaser to register the registration card containing the Original Purchasers name, address, date of installation, model number and serial number of the Unit containing the Motor-Compressor within 30 days from the date of installation shall void this warranty. This additional warranty is only available if the Motor-Compressor is inoperative due to defects in material or factory workmanship, as determined by Delfield in its sole judgement and discretion. The Original Purchaser shall be responsible for returning the defective Motor-Compressor to Delfield prepaid, F.O.B. at the address shown on the back cover of this manual.

The term "Original Purchaser" as used herein means that person, firm, association, or corporation for whom the Unit was originally installed.

The term "Motor-Compressor" as used herein does not include unit base, air or water cooled condenser, receiver, electrical accessories such as relay, capacitors, refrigerant controls, or condenser fan/motor assembly. This warranty does not cover labor charges incidental to the replacement of parts. This warranty further does not include any equipment to which said condensing unit is connected, such as cooling coils, temperature controls or refrigerant metering devices. This warranty shall be void if the Motor-Compressor, in Delfield's sole judgement, has been subjected to misuse, neglect, alteration or accident, operated contrary to the recommendations specified by the Unit manufacturer, repaired or altered by anyone other than Delfield in any way so as, in Delfield's sole judgment, to affect its quality or efficiency or if the serial number has been altered, defaced or removed. This Warranty does not apply to a Motor-Compressor in any Unit that has been moved from the location where it was originally installed. The addition of methyl chloride to the condensing unit or refrigeration system shall void this warranty.

#### **General Conditions**

Delfield shall not be liable in any manner for any default or delay in performance hereunder caused by or resulting from any contingency beyond Delfield's control, including, but not limited to, war, governmental restrictions or restrains, strike, lockouts, injunctions, fire, flood, acts of nature, short or reduced supply of raw materials, or discontinuance of any part or the Motor-Compressor by the unit manufacturer.

Replacement of a defective Motor-Compressor is limited to one (1) Motor-Compressor by us during the four (4) year period. Delfield shall replace the Motor-Compressor at no charge.

This warranty does not give the Original Purchaser of the Motor-Compressor the right to purchase a complete replacement Motor-Compressor of the same make or of another make. It further does not permit the replacement to be made with a Motor-Compressor of another kind unless authorized by Delfield. In the event Delfield authorizes the Original Purchaser to purchase a replacement Motor-Compressor locally, only the wholesale cost of the Motor-Compressor is refundable.

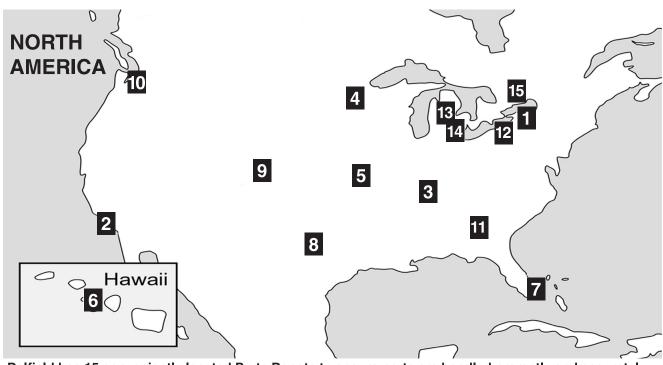
Expressly excluded from this warranty are damages resulting from spoilage of goods.

Except as provided in any applicable Standard One Year Limited Warranty or applicable Service Labor Contract, the foregoing is exclusive and in lieu of all other warranties, whether written or oral, express or implied. This Warranty supersedes and excludes any prior oral or written representations or warranties. Delfield expressly disclaims any implied warranties of merchantability, fitness for a particular purpose or compliance with any law, treaty, rule or regulation relating to the Motor-Compressor, and the full liability of Delfield for any breach of this warranty, will be as provided in this warranty.

Other than any applicable Delfield Standard One year Limited Warranty, this Delfield Additional Four Year Protection Plan and any applicable Delfield Service Labor Contract, the Original Purchaser agrees and acknowledges that no other warranties are offered or provided in connection with or for the Motor-Compressor or any part thereof.

In no event will Delfield be liable for special, incidental or consequential damages, or for damages in the nature of penalties.





#### Delfield has 15 conveniently located Parts Depots to ensure parts are handled promptly and accurately.

## 1) Appliance Installation Service 1336 Main Street

Buffalo, NY 14209 800.722.1252 716.884.7425 716. 884.0410 FAX serves: CT, DC, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VA, VT, WV

#### 3909 St. Timothy Lane St. Ann, MO 63074

5) E.M.C.O. Sales & Distributors

St. Ann, M0 63074 800.972.7670 314.427.7477 314. 427.8190 FAX serves: AR, IA, IL, KS, KY, MO, NE, OK, TX, NM, LA

#### 9) Hawkins Commercial Appl. Serv.

3000 S. Wyandot Englewood, CO 80110 (800) 624-2117 (303) 7618861 FAX serves: AZ, CO, KS, NE, NM, OK, UT, WY

#### 13) The Delfield Company

980 South Isabella Road Mt, Pleasant, MI 48858 800.733.8829 989.773.7981 989.773.3210 FAX custom parts direct from Deffield

#### 2) Barker's Food Machinery

5367 2nd Street Irwindale, CA 91706 800. 258.6999 626.960.9390 626.337.4541 FAX serves: CA, AZ, NV, OR

#### 6) Food Equip Parts & Service Co.

300 Puuhale Road Honolulu, HI 96819 808.847.4871 808.842.1560 FAX serves: HI

#### 10) Performance Refrigeration Parts

9923 S.W. 178th St. Vashon, WA 98070 888.872.2465 206-463-1772 206.463.4431 FAX serves: AK, ID, MT, OR, WA

#### 14) MicroDine, Inc.

44792 Helm Plymouth, MI 48170 888.828.4454 734.451.2043 734.451.3215 FAX serves: MI, IN, WI, OH

#### 3) T.M.A.

2916 Sidco Drive Nashville, TN 37204 615.726.0351 800.737.0351 615.259.4100 FAX serves: TN. AL

#### 7) Global Parts and Supplies

2920 N.W. 109th Avenue Miami, FL 33172 305 994.9994 305.994.9992 FAX International parts depot

#### 11) Southeastern Restaurant Services

2200 Norcross Parkway, Suite 210 Atlanta, GA 30071 800.235.6516 770.446.6177 770.446.3157 FAX serves: FL, GA, MS, NC, SC, VA

#### 15) Garland Group

1177 Kamato Road Mississauga, Ontario L4W1X4 800.427.6668 800.361.7745 FAX serves: Canada

#### 4) Contract Ice

14450 Ewing Ave S. #100 Burnsville, MN 55306 800.422.2823 952.894.4427 952.894.2164 FAX serves: IA, MN, MT, ND, SD, WI

#### 8) GCS SERVICE

10850 Sanden Drive Dallas, TX 75238 1.800.442.5026 toll free 972.484.2954 local 214.340.2363 fax serves: AR, LA, NM, OK, TX

#### 12) A.I.S. Commercial Parts & Service

1816 West 26th Street Erie, PA 16508-1149 800.332.3732 814.456.3732 814.452.4843 FAX serves: MD, NJ, OH, PA, VA, WV

